

**Physics 207 – 01**  
**Fall 2009**

Monday, Wednesday, & Friday  
10:00 a.m. to 10:50 a.m.  
Garrett 220

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Welcome to Physics 207! This class is the first half of a calculus-based introductory level university physics course. The topics covered in this course will focus primarily on mechanics, sound, and heat. The prerequisite for this course is credit or registration in Mathematics 131 (i.e. Calculus). If you do not meet these prerequisites then you must withdraw from this course.

**Goals:**

- Understand the definition of the basic units of measurement along with converting from one set of units to another.
- Add, subtract, multiply, and determine resultant vectors using the component method.
- Solve kinematics problems in one and two dimensions.
- Determine the sign and direction of an accelerated body.
- Sketch free-body diagrams and apply Newton's three laws to rigid bodies.
- Understand Newton's Universal Law of Gravitation
- Understand the definition of negative (–), positive (+) and zero (0) Work and apply it to specific problems.
- Gain a detailed understanding of the Law of Conservation of Energy.
- Gain a detailed understanding of the Law of Conservation of Momentum.
- Understand the effects of objects moving in circular and rotational motion.
- Become familiar with the basic properties elastic materials.
- Become familiar with the basic properties of fluids.
- Understand the effects of superposition and interference of waves.
- Gain a practical understanding of the three Laws of Thermodynamics.
- Use critical thinking skills to reason and predict the outcome of particular situations based on prior experience and knowledge.
- Describe their work, both orally and written, in a very clear and precise manner.

**Textbook:** PHYSICS for Scientists and Engineers, 2<sup>nd</sup> Edition by Randall D. Knight  
WebAssign Access Code

**Grading:**

|                       |          |       |
|-----------------------|----------|-------|
| Tests (4)             | 20% each | } 80% |
| Daily Work / Homework | 20%      |       |
| Final (Comprehensive) |          | 20%   |
| TOTAL                 |          | 100%  |

As the table above shows, 80% of your grade is based on five scores (four tests and the Daily Work / Homework grade). The lowest of these five scores will be dropped. If you do well on every exam but do not turn in homework (NOT RECOMMENDED), 80% of your grade will be based on your test scores only. On the other hand, if you complete your homework but you “bomb” one of the tests then that test score will be dropped.

As a result, 80% of your grade will be based on 3 tests and the Daily Work / Homework grade. Note that the Final test will NOT be dropped.

You will not receive credit for activities that occur during class time unless you are present, even if the university excuses the absence. Excused absences can be made-up if you make arrangements with me soon after your return to class. Otherwise, no make-up is possible. It is important that you attend class every period. Role is taken at the beginning of each class period, so it is important that you arrive on-time. If you arrive late, it is your responsibility to remind the instructor to mark you present. At the discretion of the instructor, the accumulation of several (i.e. 4) “lates” may result in a penalty of up to 10% on the next or current exam.

It is extremely important that you turn in all homework assignments even if you are unable to complete the entire assignment. Zero (0) credit will be assigned if you fail to turn in an assignment. A zero (0) grade will lower your overall homework grade significantly.

### **University Attendance Policy**

The right hand column of page 9 in the 2008–2009 Student Policy Manual and Organizational Handbook states the following:

2. Any student who is not present for at least 75% of the scheduled class sessions in any course may receive a grade of ‘W’ if this condition occurs prior to the last day to drop a course or a grade of ‘F’ after that date.
3. Any University–related activity requiring an absence from class will count as an absence when determining if a student has attended 75% of class meetings.

Therefore, you may miss a total of ten (10) class meetings and still meet the absence requirements. The eleventh (11<sup>th</sup>) absence will require that you drop (i.e. ‘W’) or receive an ‘F’ for the course.

### **Moodle**

Materials such as daily assignments, homework and exam scores, simulations, and other miscellaneous announcements for this course will be posted on Moodle.

### **WebAssign (i.e. On–line Homework)**

Most, if not all, homework assignments will be given online using a program called **WebAssign**. You may have used it before. You will need to purchase an access code from the bookstore. I believe they are approximately \$15.00. Also, you may purchase one on–line with a credit card. However, you can log–on and use **WebAssign** free for two weeks. That should provide you with enough time to purchase an access code and become familiar with the program. Once you have answered the questions on–line they will be submitted to a database for me to check as part of your daily work / homework grade.

To complete the first assignment (due on Wednesday, August 26<sup>th</sup> at 10:00 a.m.) you can go to <https://www.webassign.net> and then click on the brown ‘Log In’ button on the middle left side of the screen. Next, click on the red ‘I have a Class Key’ button at the

bottom middle part of the screen. Lastly, submit the following class key: **ulm 6053 9008**

Most, if not all, **WebAssign** assignments will be due by the start of the next class meeting (i.e. 10:00 a.m.). Also, I will post any additional assignments such as reading, problems from class hand-outs, etc. on Moodle after every class period.

### **Mid-term Grades**

Mid-term grades will be posted on Arrow from Monday, October 5<sup>th</sup> through Friday, October 16<sup>th</sup>.

### **Make-up Tests**

If a student misses an exam due to an excused absence, the student must present a copy of the documentation as soon as possible, preferably by the next class meeting. If you miss an exam, you must call the day of the missed exam. If a message is left, then a phone number where you may be reached must be made available to the instructor. If a student misses a test due to an unexcused absence, the student will receive a zero (0) on the test. All make-up work will be taken preferably before the next class or at a prearranged time set by the instructor. Anyone who misses an exam due to a university excused absence will need to take the exam at a prearranged time with the instructor before they return back to class or otherwise take the make-up at the end of the semester.

### **Emergency Procedure**

Please check the evacuation chart in the classroom for the shortest path out of the building in the event of an emergency. Also, please inform me if you will need extra assistance in the event that we have to evacuate the building. Please do not use the elevator when evacuating.

### **Academic Integrity**

Faculty and students must observe the ULM published policy on Academic Dishonesty (see Page 4 in *ULM Student Policy Manual* -- <http://www.ulm.edu/studentpolicy/>).

### **Course Evaluation Policy**

Students are expected to complete the on-line course evaluation. This link will be available on your Moodle account towards the end of the semester.

### **Student Services**

Information about ULM student services, such as Student Success Center (<http://www.ulm.edu/cass/>), Counseling Center (<http://www.ulm.edu/counselingcenter/>), Special Needs (<http://www.ulm.edu/counselingcenter/special.htm>), and Student Health Services, is available at the following Student Services web site <http://www.ulm.edu/studentaffairs/>.

## **Modes of Instruction**

Collaborating effectively with your classmates is an emphasis of this course. Most class periods will involve mini-lectures interspersed with short in-class activities. These activities are designed to help you recognize your own preconceptions and practice using scientific reasoning in an environment where you can correct errors immediately. You will be expected to share your ideas within a small group of your classmates and to listen to the ideas of others.

## **Help Outside of Class**

I will be available during my office hours listed below about 95% of the time. I am available at other times as well. Please feel free to stop by at any time. Also, I encourage you to seek out classmates when you need help and to make yourself available for any questions they may have. In particular, please seek out your classmates before asking for my help during office hours in the event that you missed class.

## **Office Hours**

Monday, Wednesday, & Friday: 9:00 a.m. – 10:00 a.m. & 11:00 a.m. – 12 Noon

Thursday: 11:00 a.m. – 12 Noon

By appointment on any day.

When I am not in a class, I am generally on the first floor of Hanna Hall. Drop in visits are welcome. If possible, however, make an appointment to see me so that I am certain to be available.

## **Note**

No tobacco, drinks, or food are permitted in the classroom. Grades will not be given out over the telephone or in an e-mail message. Students are asked to turn off any personal electronic devices such as cellular phones, beepers, mp3 players, video games, etc. At the discretion of the instructor, each instance of class disruption related to these types of devices may result in a penalty of up to 10% on the next or current exam. Also, the Instructor reserves the right to change a student's seat assignment. Graduating seniors are not exempt from anything. Each student is responsible for all material and assignments covered in class whether or not the student is in class.

## **Drop Date**

The final day to withdraw from this class (**with a “W”**) is Monday, November 2, 2009.

## **Grading Scale**

- $90 \leq \mathbf{A} \leq 100$
- $80 \leq \mathbf{B} < 90$
- $70 \leq \mathbf{C} < 80$
- $60 \leq \mathbf{D} < 70$
- $\mathbf{F} < 60$